

Work Order ID 156064***156064***

Page 1

Wednesday, January 25, 2017 1:53:37 PM

Item ID: PB67-43001-73

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: 20 Degree Cover Plate

Start Date: 1/25/2017 Start Qty: 10.00

10

Cust Item ID:

Required Date: 2/24/2017 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals: Process Plan: UMF Date: 1-1-29

Tooling:

Date:

QC: _____

Date:

SPC (Y/N): _____

Date:

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
B67-43001-73	Rev C								

100

0.00

100

FLOW WATER JET

Waterjet

Memo

0.17

FLOW CNC Waterjet

1-Cut as per Dwg B67-43001

Dwg Rev: CProg Rev: C

****grain direction 45 degree" ****

2-Deburr if necessary

(10)

2/17/01/29

110

0.00

110

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.02

Quality Control

(10)

2/17/01/29

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
NCR No. _____		Scrap ☐		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐			
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

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Stop *NR2*

Insp. Stamp

Quality Control

JAN 30 2017

121

DAS
 38
 189
 JAN 31 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____ Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 156064

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156064

Page 3

Item ID: PB67-43001-73 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: 20 Degree Cover Plate
Start Date: 1/25/2017 Start Qty: 10.00 ***10*** Cust Item ID:
Required Date: 2/24/2017 Req'd Qty: 10.00 ***10*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 *150* Large Fab Large Fab	Large Fab Memo 1- weld as per dwg B67-4300	0.00 0.28				10x	CPL C.S.		17/03/01
160 *160* Small Fab Small Fab	Small Fab Memo 1-grind weld flush	0.00 0.00				10	CPL C.S.		17.3.1
170 *170* QC Quality Control	QC10- Inspect visual per QSI004- ground welds Memo	0.00 0.00				(10)	17.03.06		DAS 9 8-88

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____						
Misidentified ☐	Past Due ☐							

Work Order ID 156064

156064

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Wednesday, January 25, 2017 1:53:37 PM

Item ID: PB67-43001-73 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: 20 Degree Cover Plate
 Start Date: 1/25/2017 Start Qty: 10.00 ***10*** Cust Item ID:
 Required Date: 2/24/2017 Req'd Qty: 10.00 ***10*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 *180* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.03				(10)	17.03.06		DAS 9 9-89
190 *190* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.05				#			
200 *200* Powdercoat Powder Coating	Green Sandtex(Ref:4.3.5.8) per QSI005 4.3 Memo START TIME: 12:10 OVEN TEMPERATURE: 320° FINISH TIME: 11:40	0.00 0.05				10	φ, 17.04.7.		DAS 34 9-88

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

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[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By
					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		FAULT CATEGORY Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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MAY 04 2017



DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Wednesday, January 25, 2017 1:53:36 PM

Page 1

Work Order ID: 156064

156064

Parent Item: PB67-43001-73

PB67-43001-73

Parent Item Name: 20 Degree Cover Plate

Start Date: 1/25/2017

Required Date: 2/24/2017

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP Rev:A 08-06-19 new issue DD verified by:ec
10.09.30 per rev C dwg EC verified by:DD

IPP rev B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.032		Purchased		No		100	sf	113.6648	1.0183	10.71895			

M6061T6S 032

6061-T6 Sheet 0.032"

**

01/27/01/29

Location

Loc Qty

Loc Code

MAT021

113.664782

m131352

6.000037

m133757

12.066745

m135724

95.598

12.066745
8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

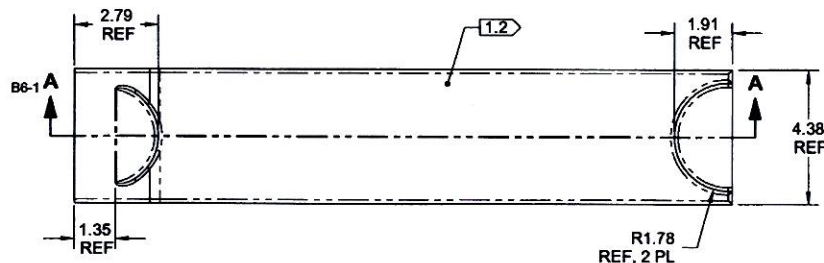
QA Closed: _____ Date: _____

Work Order update only ☐

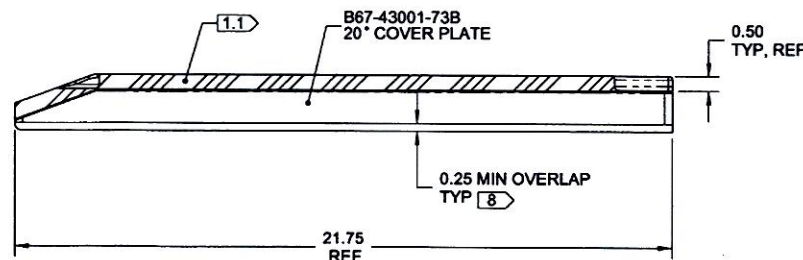
Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By
					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

8 7 6 5 4 3 2 1

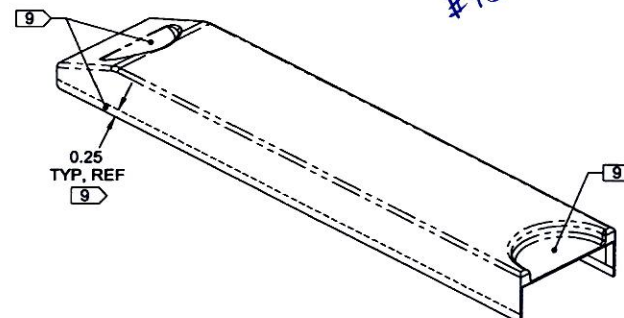
ITEM	QTY	P/N	DESCRIPTION
1	1	B67-43001-73	20° COVER PLATE
2	1	B67-43001-73B	20° COVER PLATE
3	A/R	1637-001	SEE NOTE 1.1
4	A/R	1495	SEE NOTE 1.2
5	A/R	LA4009	SEE NOTE 1.3



B67-43001-73 COVER PLATE ASSEMBLY
(MAKE FROM B67-43001-73F)



SECTION A-A D8-1



RELEASED
2010-09-16
MD

- NOTES:**
- MATERIAL:**
 - 1.1) FOAM: ETHYLENE PROPYLENE NEOPRENE SBR CLOSED-CELL, FLAME RETARDANT, 0.50 THICK, PER ASTM D1056 2A2, SERVICE TEMP -40 °F TO +200 °F, COLOUR: BLACK REF. TULMAR P/N 1637-001
 - 1.2) FABRIC: 100% 420 DENIER NYLON, MIN THREAD COUNT 35X35, POLYURETHANE COATED ONE SIDE, COLOUR: BLACK REF. TULMAR P/N 1495
 - 1.3) ADHESIVE: URETHANE WITH CATALYST, TWO PART, CLIFTON LA4009
 - 2) FINISH: BOND NEOPRENE TO COVER PLATE USING ADHESIVE. COVER WITH DENIER AS SHOWN.
 - 3) TOLERANCES: PER TABLE 1 (ZN A3-1) UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: N/A
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 0.77 lbs REF
 - 8) DENIER NYLON TO BE BONDED ALL AROUND INNER SIDES OF PLATE
 - 9) DENIER NYLON TO BE BONDED TO PLATE ON OUTER SIDES

TABLE 1 3

TOLERANCES ON FABRIC (PARTS AND ASSEMBLIES)
±1/8: DIMS <2
±1/4: DIMS 2 TO <10
±1/2: DIMS 10 TO <20
±5/8: DIMS 20 TO <40
±1.5%: DIMS EQUAL TO OR > 40

C	REDRAWN PREMIER AVIATION DRAWING IAW DART QSI 018, QSI 043 AND TULMAR SAFETY SYSTEMS INC.'S MANUFACTURING PROCESS AND TOLERANCES ON FABRIC; 4.38 WAS 4.25, FOR PREVIOUS REVISIONS, REFER TO SHEETS 7 AND 26 OF PREMIER AVIATION DRAWING No. B67-43001. REASON: SEE PARK9-011.		MB	10.04.27
	REV.	DESCRIPTION	BY	DATE
	DESIGN	RW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
	DRAWN		DRAWING NO. B67-43001-73 REV. C SHEET 1 OF 2	
	CHECKED		TITLE 20° COVER PLATE SCALE NTS	
	MFG. APPR.			
	APPROVED			
	DE APPR.	N/A		
	DATE	10.04.27		

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8 7 6 5 4 3 2 1

DQA: _____ Date: _____



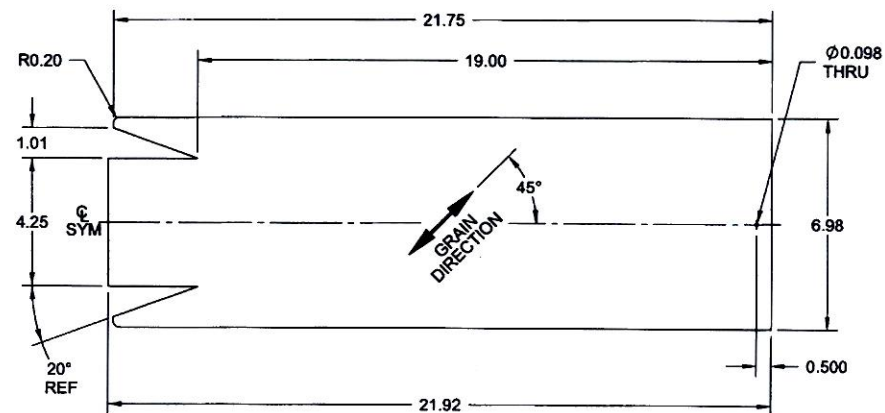
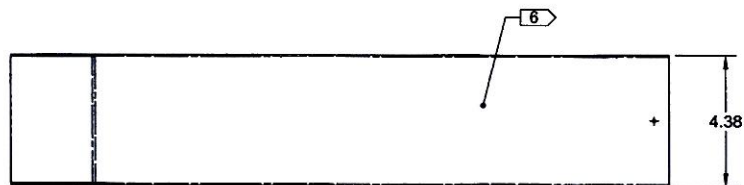
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

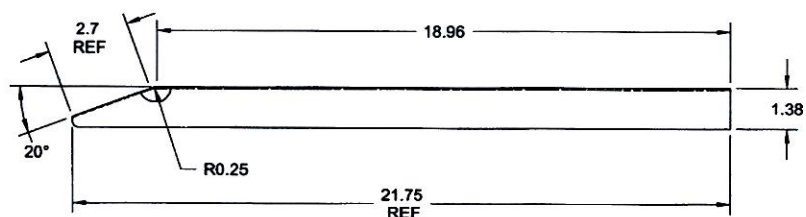
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

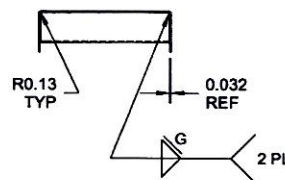
Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Misabeled	☐ Finish		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						



B67-43001-73F COVER PLATE FLAT PATTERN



B67-43001-73B BENDING DETAIL
(MAKE FROM B67-43001-73F)



RELEASED
2010-09-16
MP

NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET, 0.032 THICK
PER AMS-QQ-A-250/11 OR AMS 4025/4027 OR ASTM B209
REF. DART SPEC. M6061T6S.032
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "B67-43001-73B" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.47 lbs

DESIGN	RW	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		B67-43001-73	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.	N/A	20° COVER PLATE	NTS
DATE	10.04.27	COPYRIGHT © 1995 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD			

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : _____									

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35941

Purchase Order Date 4/12/2017
PO Print Date 4/12/2017

Page Number 1 of 3

Order From :
TULMAR SAFETY SYSTEMS
1123 CAMERON ST
HAWKESBURY, ON K6A 2B8
CA

VC-TUL001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED

APR 12 2017

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	613 632 1282	Customer POID	
Ship To Contact		Customer Tax #	10127-2607
Ship To Phone		Terms	Net 30
Ship Via:	VENDOR'S TRUCK	Currency	CAD
Ship Acct:		FOB	FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	156063	PB67-43001-69 90 DEG. COVER PLATE	5/11/2017 Yes 5/11/2017		12.00	\$55.00	\$660.00
	FOAM AND FABRIC AS PER DWG PD67-43001-83 REV. D TULMAR P/N: 8421-101						
Line Total:							\$660.00
2	156064	PB67-43001-73 20 DEG. COVER PLATE	5/11/2017 Yes 5/11/2017		10.00	\$165.00	\$1,650.00
	FOAM AND FABRIC AS PER DWG PB67-43001-73 REV. C TULMAR P/N: 8421-105 INCLUDED MARK UPS AT REV.C +MU1						
Line Total:							\$1,650.00

Note:

4/12/2017

PACKING SLIP

TULMAR

Tulmar Safety Systems Inc.
1123 Cameron Street
Hawkesbury, ON K6A 2B8

Tel: 613-632-1282
Fax: 613-632-2030
GST R132478223
MID : XOTULSAF1123HAW
email: info@tulmar.com

Packing Slip No Page

60001 1

Ship Date
4/25/2017

Bill To:

Dart Aerospace

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

Ship To:

Dart Aerospace

1270 Aberdeen Street
Tel: 613-632-9577
Hawkesbury, ON K6A 1K7
Canada

Order number	Sales order date	Account number	Loc	Account manager
34748	4/13/2017	CDART100	H	Francine Bigras
PO number	Ship via	Shipping Terms		
PO35941	Pick-Up	FOB HAWKESBURY		
Item No. Description	Quantity ordered	UOM	Qty Shipped/Returned	Quantity on back order
Line 6 - Procurement Quality Clauses A004 A005 A007 A016 A026 A040 A041 A043 (TSS 5 yrs only)				
8421-103 Cover Plate Drawing No: B67-43001-181 DWG Rev: D Line 4 SF 41801	10.00	EA	10.00	
Lot no.: BATCH0000000011	10.00			
8421-108 Dart Blade Fold Kit - Pad #9 Drawing No: B67-43001-267+MU DWG Rev: C+1 Line 5 SF 41802	6.00	EA	6.00	
Lot no.: BATCH0000000010	6.00			
8421-104 Cover Plate Drawing No: B67-43001-173 DWG Rev: D Line 3 SF 41800	10.00	EA	10.00	
Lot no.: BATCH0000000012	10.00			
8421-105 Cover Plate, 20° Drawing No: B67-43001-73+MU DWG Rev: C+1 Line 2 SF 41799	10.00	EA	10.00	
Lot no.: BATCH0000000010	10.00			

PACKING SLIP

TULMAR

Tulmar Safety Systems Inc.
1123 Cameron Street
Hawkesbury, ON K6A 2B8

Tel: 613-632-1282
Fax: 613-632-2030
GST R132478223
MID : XOTULSAF1123HAW
email: info@tulmar.com

Packing Slip No Page

60001 2

Ship Date
4/25/2017

Bill To:

Dart Aerospace

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

Ship To:

Dart Aerospace

1270 Aberdeen Street
Tel: 613-632-9577
Hawkesbury, ON K6A 1K7
Canada

Order number	Sales order date	Account number	Loc	Account manager
34748	4/13/2017	CDART100	H	Francine Bigras
PO number	Ship via	Shipping Terms		
PO35941	Pick-Up	FOB HAWKESBURY		
Item No.	Quantity ordered	UOM	Qty Shipped/Returned	Quantity on back order
Description				

SP174-28

Certificate of Conformance

☒ See Certification Enclosed

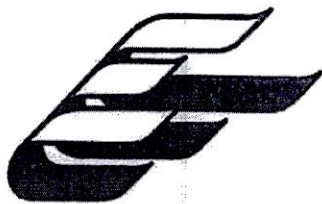
I hereby certify that the items listed hereon have been inspected, and / or tested (as applicable), conform to all specifications and requirements detailed in the contract or purchase order. Objective evidence to support this statement is on file, and can be made available upon request.
If any questions or concerns, please contact QA Manager @ 613-632-1282 ext. 245.

Authorized Inspector

Lorraine LaLiberté

Date:

APR 25 2017



J. ENNIS FABRICS

CERTIFICATE OF CONFORMANCE

January 21, 2016

Tulmar Safety Systems Inc.
1123 Cameron Street
Hawesbury, Ontario
K6A 2B8

Attention: Allan Chalot
E-Mail: allan@tulmar.com

Customer Purchase Order Number: 29645-00
J. Ennis Fabrics Reference Number: 03406993 T1

The following item/s is supplied under the stated reference:

- Oxford 7
- Description: oxford 7 Black
- Backing Content: 100% Polyurethane
- Coating: Product has a Polyurethane
- Construction: 0420 Denier
- Content: 100% Nylon
- Description: High Density Nylon, Piece Dyed, PU coated
- Features: Phthalate Free
- Weight: 5.98 ounces per square yard. 8.98 Ounces per Linear yard
- Width: 58"(147 cm)
- Hydrostatic Resistant: AATCC 127(Suter)-Average 800 mm
- Protective Finish: DWR Durable Water Repellant

This is to certify that the product/s stated herein have been manufactured in accordance to the specifications stated by the manufacturer as well as the specifications stated on your order

Sincerely;

JAN 29 2016

J. Nykolyszyn
Jennifer Nykolyszyn
Customer Service Center



1495
B#34

cle's used to mfg. B-67-43001-181 Rev. D
B-67-43001-173 Rev. D
B-67-43001-73 Rev. C + 1

Long-term Reliability (C.A.) April 25/17



Oxford 58"

OXFOR7 SPECIFICATIONS

Description	Oxford 7 Black
Backing Content	100% Polyurethane
Cautions	Product will fade with prolonged U.V. exposure. Not dimensionally stable with temperature change. Nylon is NOT suitable for boat tops, travel covers, tonneau covers or other outdoor applications.
Cleaning Instruction	Mild Soap and Water.
Coating	Product has a Polyurethane Coating.
Construction	0420 Denier
Content	100% Nylon
Description	High Density Nylon, Piece Dyed, PU coated
Features	Phthalate Free
Hydrostatic Resistan	AATCC 127 (Suter) - Average 800 mm.
Protective Finish	DWR Durable Water Repellant
Roll Size	50 yards (45.7 m)
Style	Solids / Plain
Uses	Apparel Equine Products Hockey Equipment
Weight	5.98 ounces per square yard. 8.98 Ounces per Linear Yard
Width	58" (147 cm)

** This information is offered for your general guidance only. It is accurate to the best of our knowledge and is not intended to relieve the user from its responsibility to investigate and understand other pertinent sources of information and to comply with all laws and procedures applicable to the safe handling and use of this material. Final determination of the suitability of any product for an application rests with the user.

*This term and any corresponding data refer to typical performance in the specific tests indicated and should not be construed to imply the behavior of this or any other material under actual fire conditions.

Although we do our best to make sure that the colors on our web site are accurate, actual colors will vary. Subtle color differences and textures may not be fully appreciated on some systems due to differences in monitors and/or printers.

www.jennisfabrics.com
Email:support@jennisfabrics.com

21/Jan/2016

English : (800)663-6647
French : (888)663-6647
USA : (877)953-6647
Fax : (888)274-2910

TULMAR**Certificate of Conformance**

Tulmar P/N 1637-001	Description 1/2" X 42" X 72"	Dwg #	Revision	Qty 4
Tulmar PO # 30168-00	Line Item # 01	Supplier Name / Address AM RUBBER & FOAM GASKETS INC 2074 STEELES AVE EAST, UNITS 1 & 2 BRAMPTON, ON L6T 4Z9		Supplier Packing Slip # 16428

Supplier Declarations:

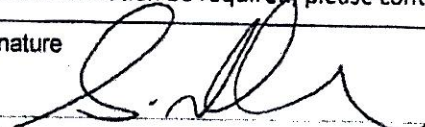
Hazardous Materials Acknowledgement	The items described below may contain, and their processing may have included, the following substances:	Hexavalent Chromium; Cadmium; Beryllium; Nickel; Mercury; Lead; Asbestos; Radioactive elements YES ☐ NO ☒
Country of Origin of Goods : CANADA		if YES, please complete the HazMat Acknowledgement form @ www.tulmar.com
Limited Shelf-Life	<u>Definition:</u> If material is consumed or transformed into final product before end of shelf-life there is no effect on final product.	These items have a limited Shelf-Life YES ☐ NO ☒
Expiry date	<u>Definition:</u> Date after which performance will no longer be as intended - expiration is transferred to the final product.	These items have an expiry date YES ☐ NO ☒

if YES, please complete the Time Expired - Shelf-Life questionnaire @ www.tulmar.com

Additional Information (MRS#, MRA#, limitations, etc...):

FOAM, SBR/EPDM/CR BLEND, BLACK
ASTM D1056 2A2, 1/2"TH.
SHEET SIZE 42" X 72" +/-0.5"
BRITTLNESS TEMP OF -40 DEGREES F
IAW ASTM D746, FMVSS 302.
QUALITY CLAUSE: GrBT3

I hereby certify that the goods listed hereon have been inspected and/or tested, as applicable, and conform to all specifications and requirements detailed in the contract or purchase order and relevant quality clauses. Objective evidence to support this statement is on file and can be made available upon request. Should further information be required, please contact:

Signature 	Name SANDRA PULSINELLI	Date (DD-MMM-YYYY) 07-06-2016
Title PRODUCTION	Email sandra@amrubber.ca	Phone # 905-455-1449

1637-001**JUN 16 2016**

Form Revision 13 Aug 2012

3#9



48 Burgess Place
Wayne, NJ 07470

Certificate Of Analysis

2/17/2017

Sales Order Number: 9425
Customer Order Number: 30970

Manufactured for
TULMAR SAFETY SYSTEMS

4172-C6.9A LA4009NOVOC, P/N 7122-001 14172-C6.9A - LA4009NOVOC, UNLINED GALLON CAN

Lot# PNJ-0117-0331 Qty: 53 CANS + PART CAN @ 3# Manufacture Date: 2/1/17 Expiration Date: 2/1/18

Test(s)	Results	Min	Max	
% Solids @275F for 30 minutes	15.0000	13.00	15.00	Percent
Brookfield,RVT,#3 Spindle,20RPM,78F	1,015.0000	800.00	1,500.00	Centipoise
Visual check for dry film color	pass	(CLEAR TO HAZY YELLOW) PASS/FAIL		

4556-S1.9 CAT7020, P/N 7153-002 14556-S1.9 - CAT7020 QUART CANS SQUARE UNLINED

Lot# PNJ-0117-0329 Qty: 11 EA Manufacture Date: 2/14/17 Expiration Date: 8/14/17

Test(s)	Results	Min	Max
	NOT APPLICABLE	NA	NA

4914-C7 DB7020M1, P/N 7153-001 14914-C7 - DB7020M1, GALLON LINED CAN

Lot# PNJ-0117-0332 Qty: 52 CANS + PART CAN @ 5# Manufacture Date: 2/3/17 Expiration Date: 8/3/17

Test(s)	Results	Min	Max	
% Solids @275F for 30 minutes	23.7000	21.00	24.00	Percent
Brookfield,RVT,#3 Spindle,20RPM,78F	835.0000	450.00	1,250.00	Centipoise

"The material supplied conforms to all applicable engineering drawing, specifications and PO requirements."

Dan Constantino

Daniel Constantino
Quality Assurance Mgr/ISO Coordinator

Country of Origin: USA

7122-001
B#10

FEB 28 2017

